

**Notice of Allowability**

Application No.

10/036,666

Examiner

Charles Chow

Applicant(s)

MATTISSON, SVEN

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 10/7/2004.
2. ☒ The allowed claim(s) is/are 13-24.
3. ☒ The drawings filed on 21 December 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

**Detailed Action**

1. Withdraw the objection to the specification, because the specification has been corrected by including the foreign priority benefit from application, Sweden 0004,889-2 12/28/2000.

***Allowable Subject Matter***

2. The following is an examiner's statement of reasons for allowance:

Applicant has **amended all independent claims with** the allowable features, with priority benefit date of 12/28/2000, for the determining a distance between the telephone and a user, based on a known direct distance between the microphone and the loudspeaker, wherein a difference between a time of receipt of the directly received acoustic control signal and a time of receipt of reflected acoustic control signal corresponds to the determined distance between the telephone and a user, for the varying, controlling, the audio level from a speaker based on the determined distance between user and loudspeaker of a mobile telephone (claims 13, 20-22, 24). Claims 13-24 are allowable over the prior art of record, the prior arts fail to teach singly, particularly, or in combination, the subject matter, the above claimed features. The dependent claims are also allowable due to their dependency upon the independent claims.

The closest patent to Myllyla (US 6,542,436 B1) teaches the acoustical detection for the user proximity to a terminal in order to adjust the volume of a speaker (abstract, Fig. 1-3, Fig. 4), **detecting user proximity using the technique of LMS filter coefficient scaling, filter 24, 22, 24A, 22A, difference 26** (Fig. 4, col. 6, line 24-60). Myllyla fails to teach the **known direct distance between the microphone and loudspeaker, the wherein a difference between a time of receipt of the directly received acoustic control signal and a time of receipt of**

reflected acoustic control signal **corresponds to the determined distance between the telephone and the user.**

Maxwell (US 5,872,743) teaches the locating of a user by utilizing microphone and speaker (abstract, Fig. 2, Fig. 3a-3b), the characterizing of the microphone received of the original, directly transmitting sound signal from speaker (col. 4, lines 10-29), the receiving reflected sound with elapsed time (col. 4, lines 36-65), the comparing of the time delay of each reflected sound 42, 44 with the characteristic parameters of originally emitted sound (col. 5, lines 27-30), to identify, discriminate, user body from other object (col. 5, lines 54-57), using intersection of two radial distances derived from first reflected and second reflected signals to locate user position based on the geometric locations of two speakers 32, 34 and microphone 30 (col. 6, lines 9-26). Maxwell fails to teach the **direct known distance, the distance between the microphone and loudspeaker, the wherein a difference between a time of receipt of the directly received acoustic control signal and a time of receipt of reflected acoustic control signal corresponds to the determined distance between the telephone and the user.**

Other prior arts in below has been considered, but they fail to teach the above claimed features.

Hatamura et al. (US 6,547,620 B1) teaches the **automatic adjusting the speaker output level to avoid user's awkward situation during conversation to partner** when the telephone is moved away from user's face (col. 2, lines 1-17), the increasing speaker volume when the detected sound level is decreasing when the telephone 101 is move away from user's face in col. 5, lines 18-45, Fig. 4-6, step 108-109; the returning of the speaker volume from the

Art Unit: 2685

increased level to the previous level when telephone is moving back to previous position adjacent to user's face, col. 5, line 61 to col. 6, line 18). Hatamura et al. fails to teach the **direct known distance, the distance between the microphone and loudspeaker, the wherein a difference between a time of receipt of the directly received acoustic control signal and a time of receipt of reflected acoustic control signal corresponds to the determined distance between the telephone and the user.**

Lucey (US 4,490,584) teaches the **remotely varying of the microphone receiving signal level**, a remote microphone 82 and a broadcast signal from local loudspeaker 78, wherein the audio level of the loudspeaker is controlled to vary the level of the received signal at microphone (abstract, Fig. 1).

**Bowen et al. (US 5,224,151)** teaches the mode switching between speakerphone mode and handset mode based on the detected distance between handset and user's face using infrared intensity distance measurement technique (abstract, col. 1, lines 46-57, Fig. 5-10).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Chow whose telephone number is (703)-306-5615.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (703)-305-4385.

Art Unit: 2685

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

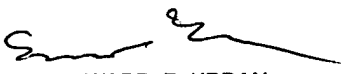
or faxed to: (703) 872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to 220 South 20th Street, Crystal Plaza Two,  
Lobby, Room 1B03, Arlington, VA 22202 (Customer Window).

Any inquiry of a general nature or relating to the status of this application or  
proceeding should be directed to the Technology Center 2600 Customer Service Office  
whose telephone number is (703) 306-0377.

Charles Chow C.C.

January 11, 2005.

  
EDWARD F. URBAN  
SUPERVISOR OF PATENT & TRADEMARKS  
TECHNOLOGY CENTER 2600